

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-5 (cancelled)

6. (currently amended) An oven conveyor alignment system of Claim 4 adapted for use in an oven having an elongated axis, the system comprising:
_____ a terminal roller having two ends positioned transaxially with respect to the oven elongated axis;
_____ a conveyor belt having an elongated axis, the conveyor belt rotating around the terminal roller;
_____ means for aligning the conveyor belt elongated axis with the oven elongated axis by adjusting the position of the conveyor belt with respect to the two ends of the terminal roller, wherein the means for aligning comprises a tensioning assembly connected to a roller shaft located at one of the ends of the terminal roller;
_____ a camera positioned toward one of the ends of the terminal roller for generating a digital image signal corresponding to the conveyor belt's position, wherein the camera has a scan interval whereby the camera generates a new pixel representation according to the scan interval;

a digital medium for storing the digital image signal as a pixel representation of the conveyor belt position; and
means for controlling the means for aligning in response to the digital image signal, wherein the means for controlling comprises a control computer that recognizes an offset in the pixel representation of the conveyor belt position and sends a signal to the tensioning assembly in order to vary the tension on the conveyor belt at the one end of the terminal roller in order to vary the conveyor belt position and correctly align the conveyor belt elongated axis with the oven elongated axis,

wherein the tensioning assembly comprises:

a sprocket wheel;

a motor mechanically connected to the sprocket wheel; and

an adjustment nut mechanically connected to the sprocket wheel by a drive chain, wherein movement of the adjustment nut controls transaxial movement of the terminal roller, and wherein transaxial movement of the terminal roller controls the alignment of the conveyor.

7. (cancelled)

8. (currently amended) ~~The An~~ oven conveyor alignment system of Claim 5 ~~adapled~~ adapted for use in an oven having an elongated axis, the system comprising:

a terminal roller having two ends positioned transaxially with respect to the oven elongated axis;

a conveyor belt having an elongated axis, the conveyor belt rotating

around the terminal roller;

means for aligning the conveyor belt elongated axis with the oven elongated axis by adjusting the position of the conveyor belt with respect to the two ends of the terminal roller, wherein the means for aligning comprises a tensioning assembly connected to a roller shaft located at one of the ends of the terminal roller;

a camera positioned toward one of the ends of the terminal roller for generating a digital image signal corresponding to the conveyor belt's position, wherein the camera has a scan interval whereby the camera generates a new pixel representation according to the scan interval;

a digital medium for storing the digital image signal as a pixel representation of the conveyor belt position; and

means for controlling the means for aligning in response to the digital image signal, wherein the means for controlling comprises a control computer that recognizes an offset in the pixel representation of the conveyor belt position and sends a signal to the tensioning assembly in order to vary the tension on the conveyor belt at the one end of the terminal roller in order to vary the conveyor belt position and correctly align the conveyor belt elongated axis with the oven elongated axis.

wherein the control computer operates in accordance with instructions, the instructions comprising:

an alarm trip point corresponding to an alarm magnitude of pixel misalignment; and

a shut down trip point corresponding to a shut down
magnitude of pixel misalignment.

9-10. (cancelled)

11-16 (canceled)